## C O N N E C T I C U T W E E K L Y



## NOTES from the DEPARTMENT

#### BOXWOOD BLIGHT—A NEW THREAT IN CT AND THE U.S.

By Dr. Sharon M. Douglas, Dept. Plant Pathology & Ecology The Connecticut Agricultural Experiment Station

In October 2011, boxwood plants with unusual symptoms were submitted to The Plant Disease Information Office of The Connecticut Agricultural Experiment Station (CAES) for diagnosis. Symptoms included leaf spots and blights, rapid defoliation, distinctive black cankers on stems, and severe dieback (Figure 1). The disease was tentatively identified as boxwood blight, caused by the fungus *Cylindrocladium pseudonaviculatum*.

Since this fungus had never been reported in the U.S., samples were sent to the national mycologists at the United States Department of Agriculture-Animal Plant Health Inspection Service-Plant

Protection and Quarantine (USDA-APHIS-PPQ) for identification. They confirmed the fungus as *C. pseudonaviculatum*. Boxwood blight has now been reported from five counties in Connecticut (Fairfield, Hartford, Middlesex, New London, and Windham), nine other states (NC, VA, RI, MA, MD, OH, OR, NY, and PA), and two Canadian provinces (BC and ON).

Boxwood blight was first observed in the United Kingdom (UK) in the mid-1990s, although the pathogen was not identified. In 2002, the disease was found in New Zealand and the causal agent was described and formally named as a new species, *Cylindrocla-dium pseudonaviculatum*. Boxwood blight also has been reported in many European countries. It is not known how or when the pathogen was introduced into the U.S.

Boxwood blight has been reported on all *Buxus* species, although some species and varieties appear to be more susceptible than others; *Buxus sempervirens* 'Suffruticosa' (English boxwood) and *B. sempervirens* (American or common boxwood) appear to be highly susceptible. Other species grown in Connecticut include many varieties of *Buxus sinica* var. *insularis* (Korean boxwood), *Buxus microphylla* (little leaf boxwood), *Buxus microphylla* var. *japonica* (Japanese boxwood), and *Buxus sinica* var. *insularis* X *B. sempervirens* hybrids. Experimental inoculations have demonstrated that *Sarcococca*, another member of the boxwood family (Buxaceae), is also susceptible. The complete host range of this pathogen is not known, but plant pathologists at the Connecticut Agricultural Experiment Station recently determined that *Pachysan*-

dra terminalis (pachysandra, Japanese spurge) is also a host. This raises some concerns about pachysandra as a potential reservoir host for infection of boxwood.

Cylindrocladium pseudonaviculatum infects all aboveground portions of boxwood, but does not appear to infect the roots (Figure 1). Initial foliar symptoms appear as light to dark brown spots, often with dark borders. Spots enlarge and coalesce, often with a concentric pattern or zonate appearance, and distinctive black streaks or cankers develop on stems. Infected leaves become brown or straw colored, and defoliation occurs quickly once foliar symptoms are visible. Although the plant attempts to regrow, repeated infection and defoliation can weaken the root system and lead to plant death, especially for young plants or new transplants.

(continued on Page 3)



Figure 1. Symptoms on a boxwood from a landscape planting.



## WHOLESALE BERRIES SHIPPED IN

	Low	High
BLACK CRNT,CH	34.00	34.00
BLACKBRY,12/6oz,MX	30.00	36.00
BLUEBRY,12/4.4,FL	15.00	16.00
BLUEBRY,12/6,med,CA	35.00	35.00
BLUEBBRY,12/6,org,FL	42.00	42.00
CAPE GOOSEBRY,12/3.5	28.00	28.00
GOOSEBRY,12/6,NZ	40.00	40.00
RASPBRY,12/6,lgn,CA	48.00	48.00
STRAWBRY,8/1lb,md,CA	16.00	21.00
STRAWBRY,8/1,org,CA	30.00	30.00

## **NEW HOLLAND, PA, HOG AUCTION**

April 16, 2012 Hogs sold by actual weights, prices

quoted by hundred weight. 200-270 lbs 60.00-64.00 49-54 270-300 lbs 58.00-63.00 Sows: US 1-3 300-500 lbs 45.00-50.00

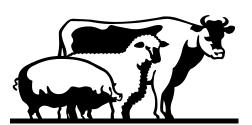
Boars: 300-700 lbs 29.00-31.00

500-700 lbs 50.00-55.00

#### MIDDLESEX LIVESTOCK AUCTION

Middlefield, April 16, 2012 Live animals brought the following ave prices per cwt

ollowing ave. pric	es per cwt.
Low	High
50.00	60.00
130.00	140.00
150.00	155.00
160.00	165.00
170.00	175.00
182.00	190.00
125.00	147.50
80.00	97.50
85.00	110.00
65.00	125.00
65.00	70.00
86.00	100.00
41.00	45.00
85.00	100.00
75.00	180.00
23.00	50.00
Up to	80.75
81.00	84.00
85.00	90.00
5.00	37.50
6.00	45.00
15.00	29.00
All at	80.00
50.00	180.00
105.00	125.00
	50.00 130.00 130.00 150.00 160.00 170.00 182.00 125.00 80.00 65.00 65.00 86.00 41.00 85.00 75.00 23.00 Up to 81.00 85.00 6.00 15.00 All at 50.00





### WHOLESALE VEGETABLES **NEW ENGLAND GROWN**

High

Low

	LOW	riigii
APPLE,CrtInd,100 ct,fcy	20.00	20.00
APPLE,Mac,100ct,US1	18.00	18.00
APPLE,Red del,80ct,xfcy	18.00	18.00
CIDER,9-1/2gal	18.00	18.00
FIDDLEHEAD,10lb	75.00	80.00
LETTUCE,Bstn,12/4oz	14.00	16.00
PARSNIP,25lb	22.00	22.00
POTATO,10lb	2.90	3.00
TOMATO,Chrry,5lb flat	14.00	14.00
TOMATO,Grnhs,25lb,lg	16.00	17.00
SHIPPED IN		
	Low	High
ASPARAGUS,11lb,lg,CA	22.00	23.00
BEAN,Grn,hnd pk,bu,FL	20.00	22.00
BROCCOLI,14ct,AZ	11.00	15.00
CABBAGE,Grn,50lb,FL	10.00	13.00
CANTALOUPE, 12ct, HD	20.00	21.00
CHIVES,1kg,IS	20.00	22.00
CUKES, 1-1/9 bu,md,FL	18.00	24.00
COLLARDS,12-16,SC	12.00	13.00
CORN,4dz,FL	15.00	16.00
DANDELION GRNS,bu,NJ	17.00	17.00
EGGPLANT,1-1/9,md,FL	18.00	22.00
KALE,24s,AZ	12.00	13.00
LEEKS,12s,NJ	16.00	18.00
LETTUCE, Grnlf,24,AZ	15.00	18.00
ONION, Green, 48s, CA	11.00	14.00
ORANGE,88ct,CA	18.00	19.00
PEAS,Snow,10lb,GU	12.00	13.00
PEPPER,Grn,1-1/9,lg,FL	18.00	20.00
SQUASH, Acorn,1-1/9bu,FL	33.00	35.00

(Boston Terminal and wholesale grower prices)



April 16, 2012

Bulk/ Low Dressing

SLAUGHTER COWS:

Breakers 75-80%lean

88.00-93.00 94.00-98.50 78.50-83.00

Boners 80-85% lean

84.00-88.00 89.00-90.00 76.50-82.00

Lean 88-90% lean

77.50-82.00 83.00-87.00 70.00-76.00

CALVES: All prices per cwt.

Graded Bull Calves: Number 1

95-125lbs 197.00-200.00

80-90lbs 190.00-210.00

Number 2 95-120lbs 170.00-200.00

Number 3 95-125lbs 140.00-170.00

Holstein Heifers: Number 1

90-105 lbs 230.00-280.00

Number 2

90-105 lbs 100.00-160.00

SLAUGHTER LAMBS: Non-Traditional Markets:

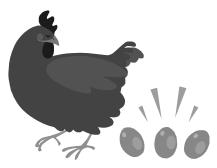
Wooled & Shorn Choice and Prime 2-3

40-60lbs 355.00-274.00

60-80lbs 242.00-374.00

80-90lbs 230.00-254.00

90-110lbs 242.00-248.00



### **WEEKLY NEW ENGLAND SHELL EGGS**

Prices paid per dozen. Grade A brown egg in carton delivered store door. (Range)

XTRA LARGE	145-156
LARGE	142-153
MEDIUM	111-119

#### NORTHEAST EGG PRICES USDA

April 16, 2012

Prices to retailers, sales to volume buyers, USDA Grade A and Grade A, white eggs in cartons, warehouse, centers per dozen. (Range)

EXTRA LARGE	98-102
LARGE	96-100
MEDIUM	80-84

#### PENNSYLVANIA GRAIN REPORT

April 16, 2012

Grain market for eastern Pennsylvania.

Corn, No.2, bu.	6.70-7.03
Ear Corn, ton	190-190
Soybeans, No.2, bu.	13.62-14.01



110-130lbs 200.00-210.00 130-150lbs 155.00-178.00 Wooled & Shorn Choice 2-3 40-60lbs 258.00-264.00

60-80lbs 246.00-254.00 80-90lbs 200.00-218.00

90-110lbs 180.00-200.00

SLAUGHTER EWES: Good 2-3: Med. Flesh 120-160lbs 98.00-106.00

160-200lbs 80.00-96.00 200-300lbs 70.00-86.00

Utility 1-2: Thin Flesh

120-160lbs 64.00-86.00 160-200lbs 60.00-79.00

SLAUGHTER GOATS: All goats are Selection 1, sold by the head, on est. weights.

20-40lbs N/A

40-60lbs 138.00-170.00

60-80lbs 167.00-185.00

90-100lbs 184.00-205.00

110-130lbs N/A

Nannies/Does: 80-130lbs 158.00-171.00

130-180lbs 164.00-179.00

Bucks/Billies: 100-150lbs 178.00-198.00

150-250lbs 225.00-240.00

## **ADVERTISEMENTS**

### **FOR SALE**

- 1-R. Blumenthal & Donahue is now CT's first independent NATIONWIDE Agri-Business Insurance Agency. Christmas tree growers, beekeepers, sheepbreeders, organic farmers and all others, call us for all your insurance needs. 800-554-8049 or <a href="https://www.bludon.com">www.bludon.com</a>
- 2-R. Farm, homeowner and commercial insurance--we do it all. Call Blumenthal & Donahue 800 554-8049 or <a href="https://www.bludon.com">www.bludon.com</a>
- 4-R. Gallagher electric fencing for farms, horses, deer control, gardens, & beehives. Sonpal's Power Fence 860-491-2290.
- 6-R. Packaging for egg sales. New egg cartons, flats, egg cases, 30 doz and 15 doz. Polinsky Farm 860-376-2227.
- 9-R. Rough sawn lumber, fence boards, trailer planks, tomato stakes, custom and portable sawing 203-788-2430.
- 10-R. Nationwide Agribusiness Insurance Program, endorsed by the CT Farm Bureau, save up to 23% on your farm insurance and get better protection. References available from satisfied farmers. Call Marci today at 203-444-6553.
- 31-R. Kiln dried sawdust for bedding, excellent for cows and horses. Good rates. Trailer load. Call for price in your area @ 860-974-3853.
- 51-R. "Woods" 5' PTO Finch mower, serviced, ready to work, extra blades. \$750.00 "Woods", 6' PTO bush mower, extra blades, plus parts mower. \$800.00. New 8 frame bee hives, complete with 16 Pierco frames, \$150.00 each. "Woodlot" 6.5 acres, perfect for camp, agriculture, hunting, in the middle of the woods. \$30,000.00. 860-423-1347. Cell 617-308-3015.
- 57-R. Beef heifers, crosses and purebreds. Open and bred. Call Diane. 860-620-0194.
- 58-R. JD 6310 4x4 640 loader, \$26,000.00. 6405 2WD with loader low hours \$26,000.00. JD 750 2WD with loader \$4,500.00. IH 986 2WD \$8,500.00. NH 575 baler with thrower \$11,000.00. NH 311 baler. NH 315 with thrower. JD 336 with kicker. NH 256, 258 rakes. New Pequeaeu 11 ft. rotary rake. JD 660 rake. New 17 ft. Morra hydraulic fold tedder. NH BR 730 round baler like new \$11,000.00. JD 1600 4 bottom reset plow. IH 710 4 bottom, (2) 720 4 bottom reset plows. JD B, 530, 730 tractors. new and used metal kicker wagons. New yellow roofs for JD roll bars \$800.00. Case IH SBX 520 baler same as NH 565, like new \$7,500.00. 203-530-4953.
- 60-R. Liability coverage for sale of raw milk--call Blumenthal & Donahue for a no obligation quote. 800-554-8049.
- 61-R New & used farm tractor Massey Ferguson & Yanmars starting out at \$13,500. Tractor & loader. 0% financing 72 months. Krone haying equipment rake, tedder, mowers & more. OPEN HOUSE April 21<sup>st</sup>, 9-2. Website--www.bigboystoysllc.net. Scenic Rte 169, Pomfret, CT Lots of equipment new & used. 860-928-9778. Great financing available
- 63-R Sawdust, landscape materials, compost. 860-642-7084. blueslopesawdust@hotmail.com

#### **MISCELLANEOUS**

- 7-R. Farm/Land Specializing in land, farms, and all types of Real Estate. Established Broker with a lifetime of agricultural experience and 40 years of finance. Representing both Buyers and Sellers. Call Clint Charter of Wallace-Tustin Realty (860) 644-5667.
- 11-R. Lily's LLC Appraisal Services specializes in Estates, Commercial & Industrial, Residential, Agricultural, Conservation Easements and Reevaluation Appraisals. Call Lori Longhi at 860-463-9997.

#### REQUEST FOR PROPOSAL

Connecticut farmers, specialty food producers, visit <a href="http://www.biznet.ct.gov/SCP\_Search/BidDetail.aspx?CID=25030">http://www.biznet.ct.gov/SCP\_Search/BidDetail.aspx?CID=25030</a> to respond to a Request for Proposal (RFP) due May 15, 2012. There will be an informational meeting about this RFP at 10:00 a.m. on April 30, 2012, at the Connecticut Department of Administrative Services, 165 Capitol Avenue, Room 161, Hartford, CT. Questions will be gathered and answers sent to all applying. For more information, contact Ann Simeone at <a href="mailto:Ann.Simeone@ct.gov">Ann.Simeone@ct.gov</a> or 860-713-505.

# BOXWOOD BLIGHT—A NEW THREAT IN CT AND THE U.S. (continued from Page 1)

To date, the only residential properties that have tested positive for boxwood blight are those where new boxwood plants were installed during 2011. We observed several examples of established boxwood plantings that appeared to be killed in one season following the introduction of presumably infected plants (Figure 2). Boxwood blight spreads very rapidly under warm and humid conditions and 2011 was a moderately warm, wet year with several violent rain events.



Figure 2. Seven-year-old planting of boxwood infected with blight.

Boxwood is a mainstay of Connecticut landscapes for many reasons, including its deer resistance. The current U.S. wholesale market value for boxwood nursery production is estimated at \$103 million annually. Boxwood is an important and valuable crop to Connecticut nursery growers, garden centers, and landscapers and contributes to the total annual sales of the green industry in Connecticut that exceed \$1 billion. Boxwood blight has been a serious problem in commercial production nurseries, garden centers, and wholesale distributers where conditions are often favorable for infection because boxwood plants are in close proximity, are watered overhead, and leaf debris is abundant. Outbreaks have resulted in significant economic losses in Connecticut, estimated at approximately \$3 million since October 2011.

The boxwood blight pathogen has a rapid disease cycle that can be completed in one week. It thrives in a temperature range of 41-86 °F, with an optimum temperature of 77 °F. The fungus does not require a wound to infect, but moisture is necessary for infection. We have isolated the fungus from symptomless plants. The fungus produces many spores (conidia) in a slimy matrix and it survives in leaves and cankers of infected plants and for up to five years in leaf debris (fallen, infected leaves).

Boxwood blight spores are splash-dispersed and can be carried by wind or wind-driven rain over short distances. Longer distance spread is thought to occur through the activities of humans (e.g., contaminated boots, clothing, and equipment), animals, and birds, since the spores are sticky. Infected plant material is the primary means for long-distance spread. The key factor for unintentional spread of this disease, called the "Trojan horse" or "Typhoid Mary" syndrome, is the movement of apparently "healthy" boxwood (infected, but asymptomatic or having very limited outward symptoms) or boxwood treated with fungicides that suppress, but do not kill or eradicate the fungus.

(continued on Page 4)

# BOXWOOD BLIGHT—A NEW THREAT IN CT AND THE U.S. (continued from Page 3)

Boxwood in production and landscapes are susceptible to several diseases that can be confused with boxwood blight. These include Volutella blight, Macrophoma leaf spot, boxwood decline, winter injury, mites, and leafminer. Boxwood can often be infected with more than one pathogen or pest—we have commonly found boxwood blight along with Volutella canker and/or Macrophoma leaf spot or with infestations of leafminer. Therefore, proper laboratory diagnosis is required.

#### MANAGEMENT STRATEGIES

Whether in the nursery, garden center, or landscape, management of boxwood blight requires aggressive measures that include combined use of culture, scouting, sanitation, and when appropriate, fungicide sprays. This disease is generally considered a serious disease affecting the quality and aesthetics of plants, but it can lead to plant death. It is important to start with pathogen-free material by purchasing from reputable nurseries or garden centers. Plants should be carefully inspected for symptoms at time of purchase or planting. Newly purchased plants should be isolated from existing boxwood plantings or production areas and monitored for symptoms for at least four weeks prior to planting. Adequate spacing between plants can help to maximize air circulation and minimize conditions favorable for disease development and spread. It is helpful to avoid overhead watering, since water is important for spreading the fungus. It also helps to avoid working with plants when they are wet, to avoid spreading the fungus during these types of activities. Sanitation, accomplished by raking and removing leaf debris, is critical for eliminating and reducing inoculum,

since the fungus can survive in plant debris for up to five years. Scout and inspect all boxwood plants weekly. As soon as boxwood blight symptoms are detected, immediately dig whole plants and place them in plastic bags to avoid carrying infected material through a landscape. Infected plant material should NOT be composted. If you observe suspicious symptoms, it is important to have the disease accurately identified by a specialist (plant pathologist). Planting less susceptible species of boxwood or alternatives to boxwood can reduce the potential for disease. Examples of alternative plants include some dwarf cultivars of *Ilex crenata*, *Pieris japonica*, *Rhododendron* spp., and *Taxus baccata*.

The final strategy for managing boxwood blight involves selection, timing, and application of fungicide sprays. Reports on fungicide efficacy from Europe and the UK show that fungicides are not curative, but can be used as protectants. For Connecticut homeowners, the fungicides chlorothalonil and mancozeb are registered for use.

If you observe suspicious symptoms on boxwood, it is important to have the disease accurately identified by a specialist. The most current information on boxwood blight can be found on the Boxwood Blight page on the Experiment Station's website, <a href="https://www.ct.gov/caes/pdio">www.ct.gov/caes/pdio</a>.

#### FREE SOCIAL MEDIA FOR FARMS WEBINAR MAY 2

A free webinar on social media strategies for farms will be held from 1:00 to 2:00 p.m. EDT on Wednesday, May 2, 2012.

For more information, contact webinar hosts <a href="mailto:lisa.chase@uvm.edu">lisa.chase@uvm.edu</a>, <a href="mailto:jessica.a.schmidt@uvm.edu">jessica.a.schmidt@uvm.edu</a>, <a href="mailto:ecurry@ShelburneFarms.org">ecurry@ShelburneFarms.org</a>, or <a href="mailto:blamsden@plymouth.edu">blamsden@plymouth.edu</a>.



Advertising Rates: Fifteen words or less \$3.75 per insertion. For ads of more than 15 words, 25 cents per word per insertion. Initial letters, hyphenated words, phone numbers, and addresses, etc., are counted separately. Print or type copy. Publication on a specific date cannot be guaranteed. Advertisements will be published on a first-come, first-served basis. Ads must be received by noon the Friday before a publication date to be considered for inser-

tion. Only ads of an agricultural nature with a Connecticut phone number will be accepted. Remittance with copy required. Make check or money order payable to the Connecticut Department of Agriculture.

## CONNECTICUT DEPARTMENT OF AGRICULTURE

Steven K. Reviczky Commissioner 860-713-2500 Marketing & Technology Robert Pellegrino 860-713-2503 Regional Market Robert Pellegrino 860-566-3699 State Veterinarian Dr. Mary J. Lis 860-713-2505 Regulation & Inspection Dr. Bruce Sherman 860-713-2504 Farmland Preservation Joseph Dippel 860-713-2511 Aquaculture **David Carey** 203-874-2855

Email: Linda.Piotrowicz@ct.gov Internet: www.CT.gov/doag

860-713-2516

860-713-2514

FAX NUMBERS

Connecticut Weekly Agricultural Report (ISSN: 1059-8723, **USPS 129-340**) is published weekly by the Connecticut Department of Agriculture, 165 Capitol Avenue, Hartford, CT 06106, except for the weeks of Thanksgiving and Christmas, two other weeks each year, and when the Governor closes state offices. Print subscriptions are \$40.00 for two years. Periodicals postage paid at Hartford, CT. **POSTMASTER**: Send address changes to the

Connecticut Department of Agriculture, 165 Capitol Ave., Hartford, CT 06106. Print subscriptions expire on December 31, 2013.

VOL. XCII No. 16 April 18, 2012